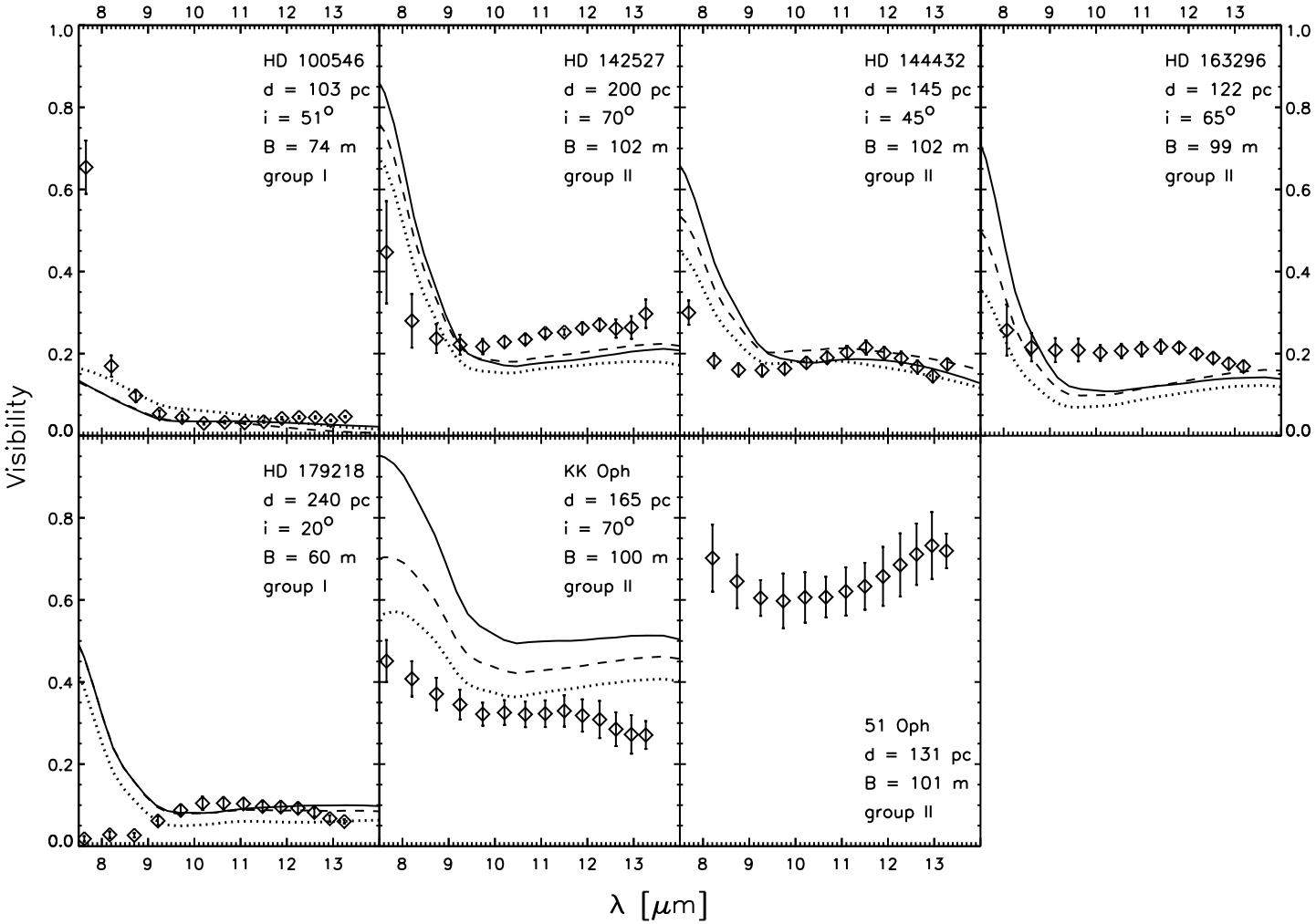
Mid-infrared sizes of disks around Herbig Ae stars

Ch. Leinert et al. 2004, A&A 423, 537

- **N-band visibilities measured on VLTI on UT telescopes, instrument MIDI and baseline 100 m**
- **disks well resolved (visibility ≈ 0.2)**
- **disk models were fitted to SEDs**
- **these models, with puffed-up inner disk rim, appear reasonable, fit qualitatively the visibilities**



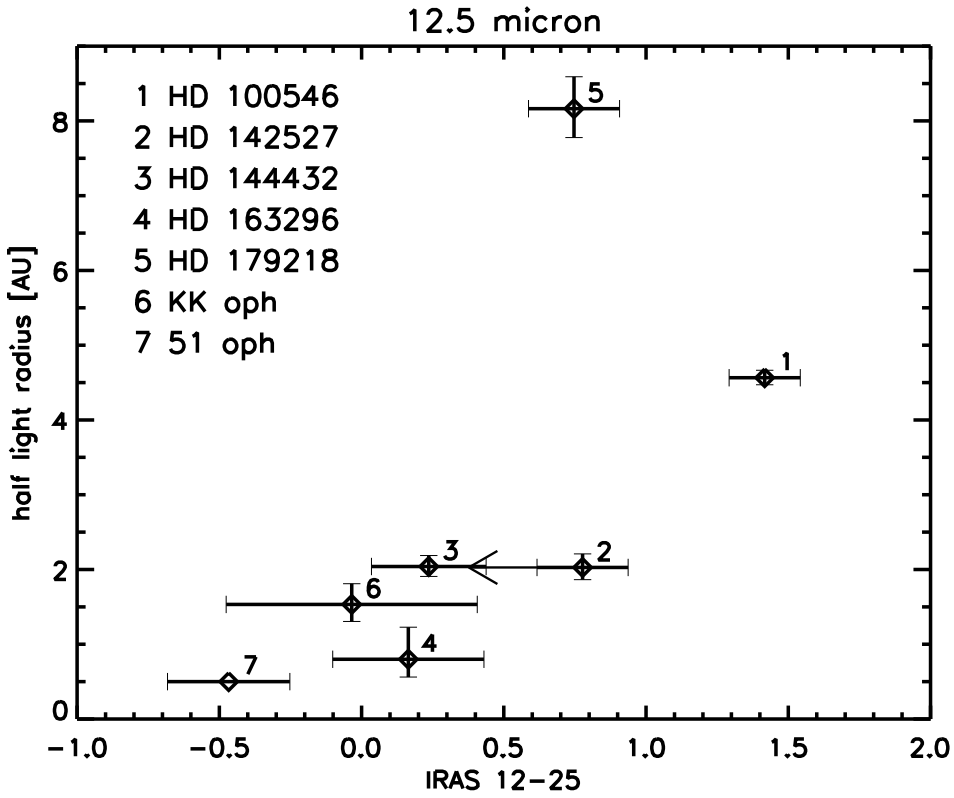
measured visibility: diamonds
pole-on models: dotted
short-axis models: solid line
long-axis models: broken line

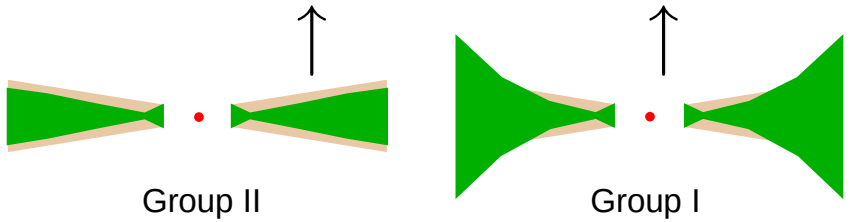
evidence for the proposed grouping of disk models

- **Hypothesis:**

Group I sources
(FIR excess, probably with strongly flared disks)
should appear larger than
Group II sources
(“self-shadowed” disks)

- **such a relation between size (half-light radius) and far-infrared colour (IRAS 12 μm - IRAS 25 μm) shows in the MIDI data**





– for the silicate features
observed in these objects
at our interferometric resolution ($\approx 1 AU$)
see van Boekel et al. 2004, Nature 432,479